

A cross-sectional view of a semiconductor device. A central copper (Cu) layer (22) is sandwiched between two carbon film (CF) layers (21 and 23). A top layer (31) is on the right, and a bottom layer (32) is on the left. A contact pad (24) is on the left, and a contact pad (33) is on the right.

A cross-sectional view of a semiconductor device. A central rectangular layer is labeled "Cu" (22). This layer is sandwiched between two horizontal layers, both labeled "CF" (21). The Cu layer (22) is connected to a top horizontal layer labeled "31" through two vertical vias labeled "23". Above the top layer "31" is another horizontal layer labeled "33". Below the bottom "CF" layer (21) is a bottom horizontal layer labeled "34". On the left side, a layer labeled "24" is shown, which is connected to the Cu layer (22) and the top layer (31) via a via (23).

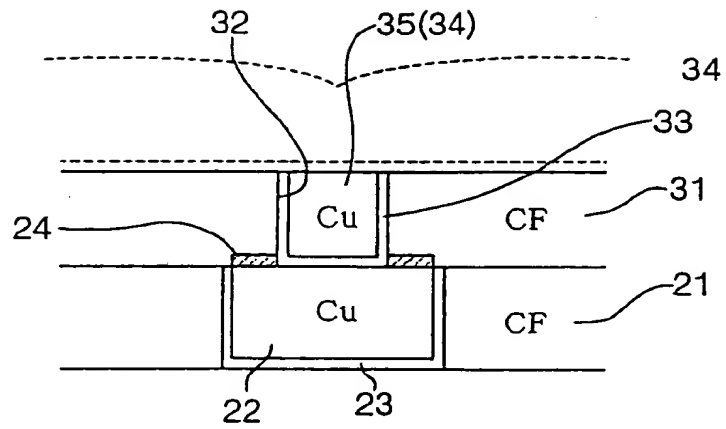


FIG. 2A

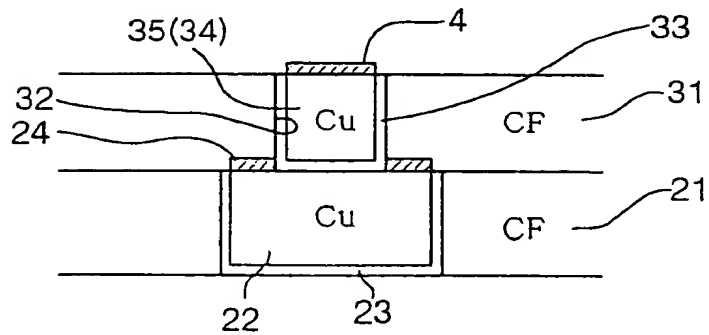


FIG. 2B

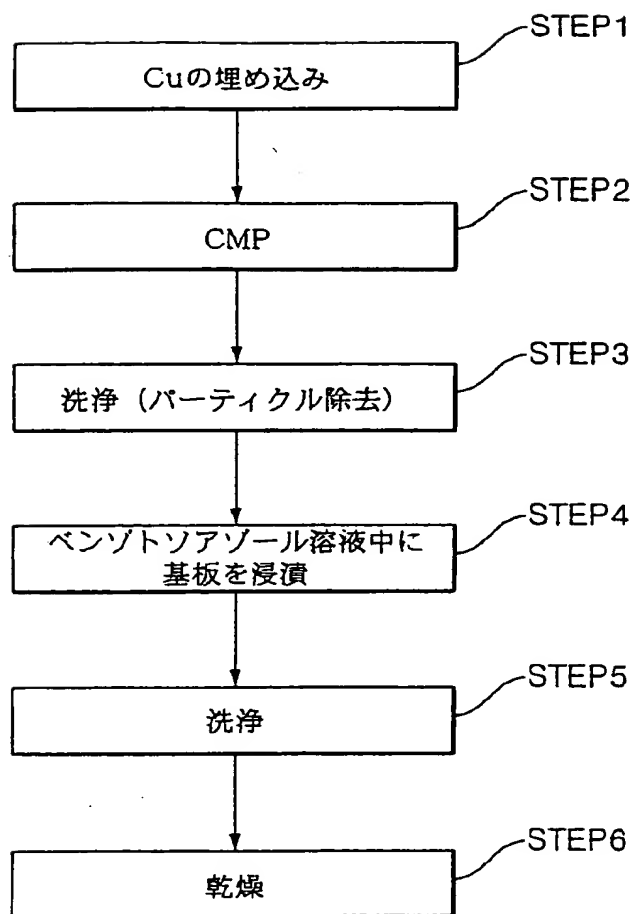


FIG. 3

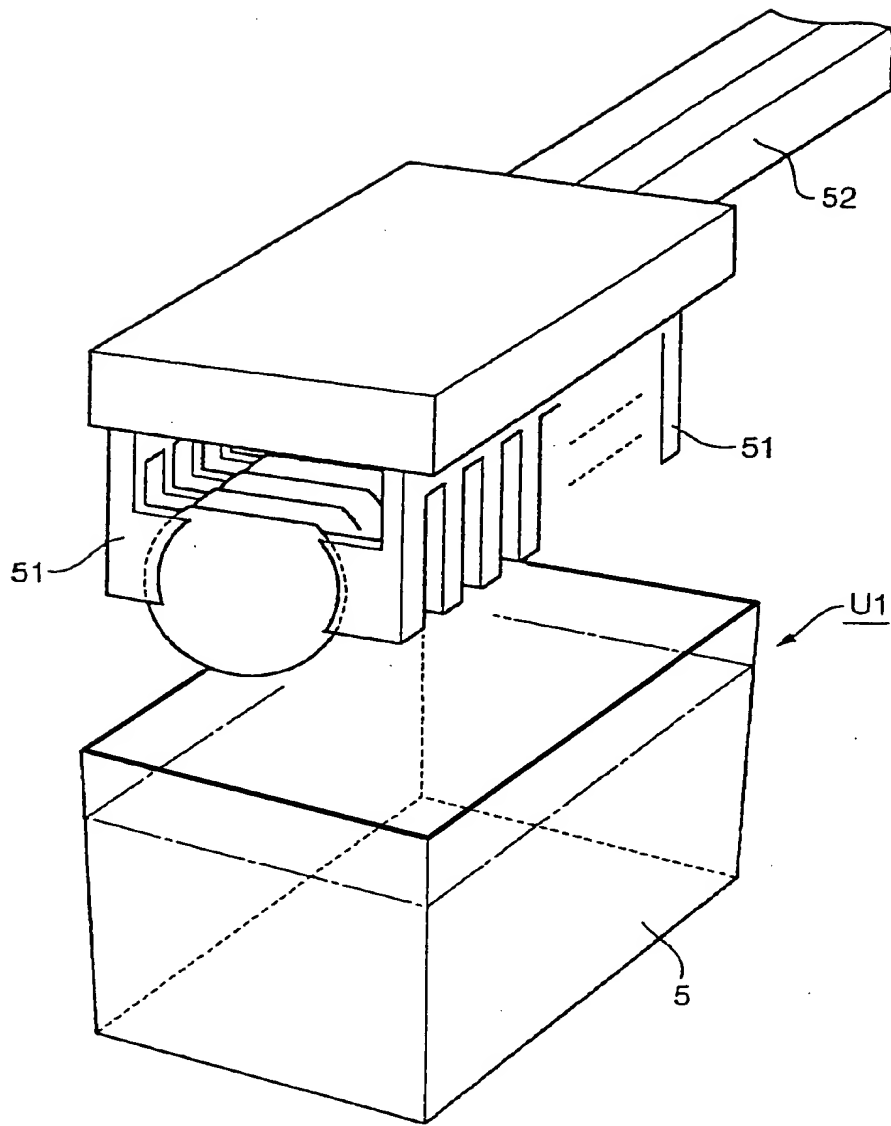


FIG. 4

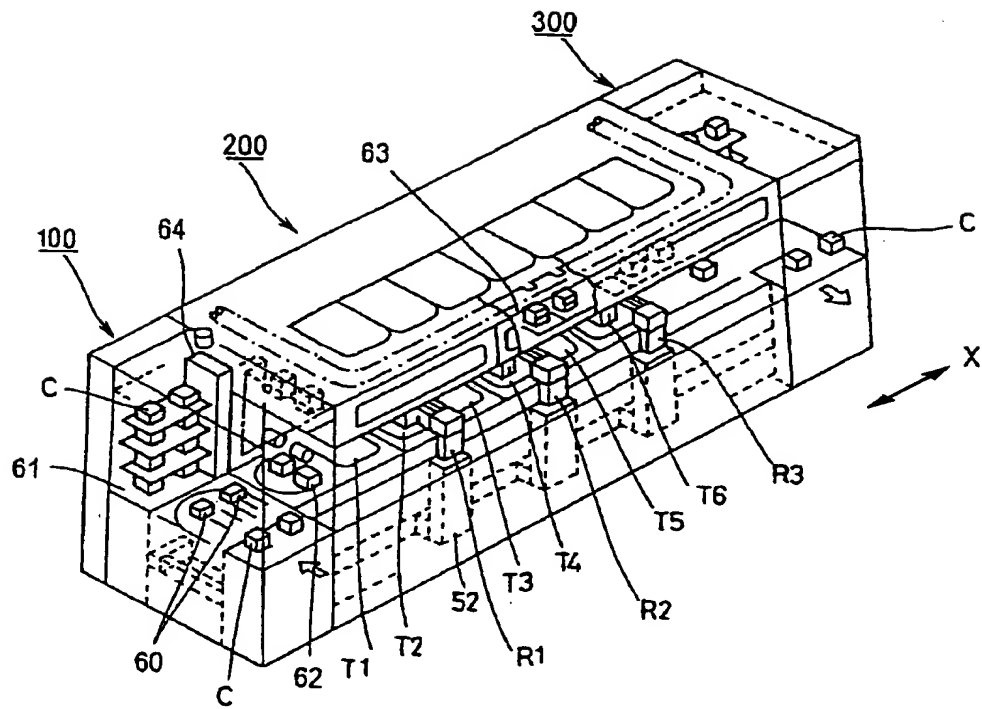


FIG. 5

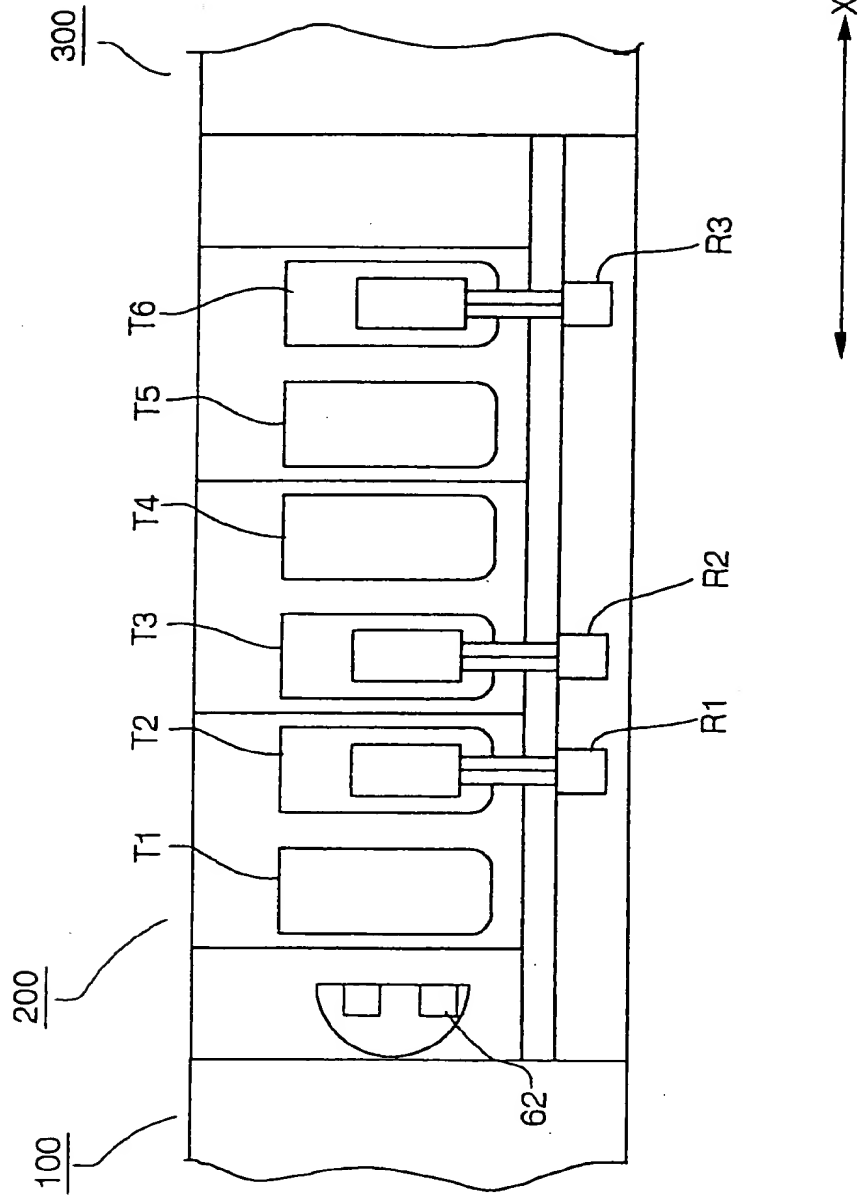


FIG. 6

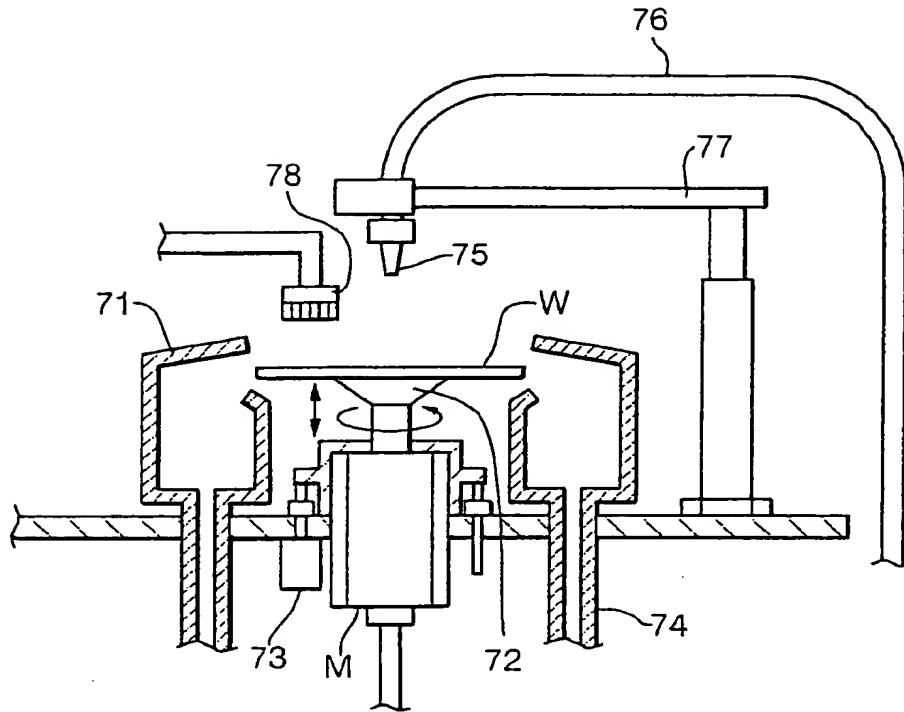


FIG. 7

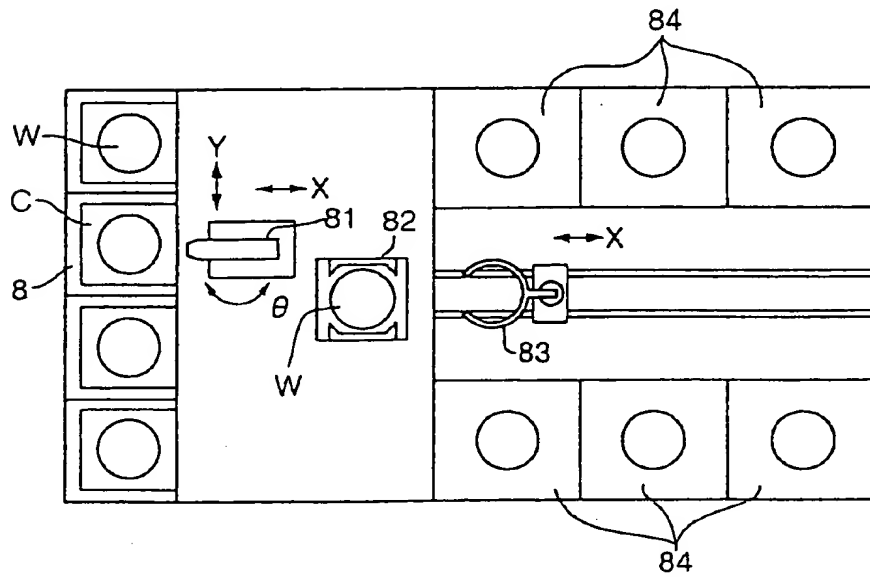


FIG. 8

FIG. 9A

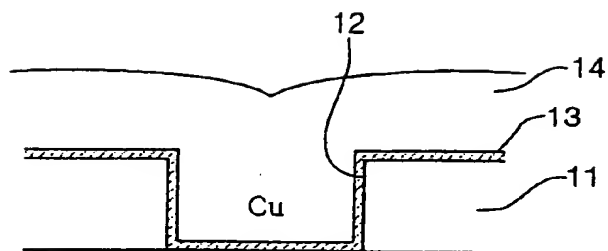


FIG. 9B

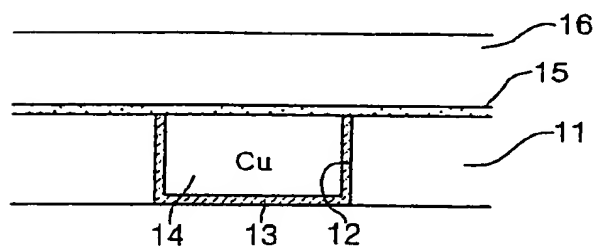


FIG. 9C

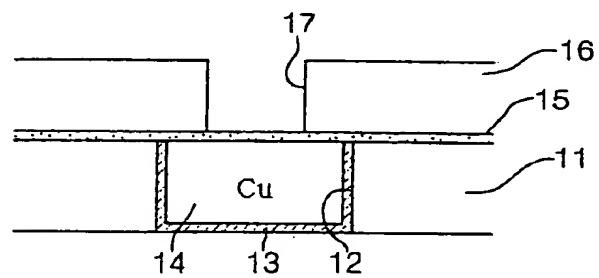


FIG. 9D

